

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

RESPONSE OF UNITED STATES POSTAL SERVICE
TO INTERROGATORIES OF THE NATIONAL NEWSPAPER ASSOCIATION
REDIRECTED FROM WITNESS MEEHAN
NNA/USPS-T11-2-7, 13, 15

The United States Postal Service hereby provides the responses of witness Hunter to the following interrogatories of the National Newspaper Association: NNA/USPS-T11-2-7, 13, 15, filed on March 23, 2000, and redirected from witness Meehan.

Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking



Kenneth N. Hollies

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS HUNTER
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NNA/USPS-T11-2. Please refer to Table 2 of witness Hunter's testimony (USPS-T-5), which provides the 1998 volume estimate for Periodicals In-County mail on page 8. Please confirm that the 95 percent confidence interval for the Periodicals In-County volume estimate has a lower limit of 884,028,000 pieces and an upper limit of 963,702,000 pieces.

RESPONSE. Confirmed.

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NNA/USPS-T11-3. Please confirm that there is a 95 percent chance that the true 1988 volume for Periodicals In-County mail lies in the range from 884,028,000 to 963,702,000 pieces.

RESPONSE. Not confirmed. The probability that this interval includes the 'true' In-County volume total is either 1 or 0. A 95% confidence interval means that one would expect to find from many intervals estimated using the same sample design and estimator methodology, that about 95 out of 100 intervals would include the actual population measure as obtained by means of a census. However, for any single estimated confidence interval, because the endpoints are fixed, it cannot be known whether the attained interval includes the actual measure for the population under study, i.e., the actual measure is either in the interval or it is not.

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NNA/USPS-T11-4. Please confirm that there is a 5 percent chance that the true 1998 volume for Periodicals In-County mail lies outside the range from 884,028,000 to 963,702,000 pieces, meaning a 5 percent change [sic] that the true volume is either less than 884,028,000 pieces or greater than 963,702,000 pieces.

RESPONSE. Not confirmed. See my response to NNA/USPS-T11-3.

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NNA/USPS-T11-5. Please confirm that if the true 1998 volume for Periodicals In-County mail is in the 95 percent confidence interval that it could have any value in the range from 884,028,000 to 963,702,000 Pieces.

RESPONSE. If the true value is indeed in the estimated confidence interval {884,028,000, 963,702,000} for total pieces as stated in this hypothetical case, then the true value cannot also be outside of this interval. See also my response to NNA/USPS-T11-3.

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NNA/USPS -T11-6. If the true 1998 volume for Periodicals In-County mail is 884,028,000 pieces, at the lower limit of its 95 percent confidence interval, and the true 1998 volume variable cost is \$76.9 million, please state the resulting marginal cost per piece.

RESPONSE. It is my understanding that marginal cost is customarily calculated at the point estimate or midpoint of the attained interval for volume. Using the point estimate of 923,865(000) pieces for In-County volume provided in Table 2 of my testimony, the cost estimate is \$0.083. Under the hypothetical case where the cost is inappropriately calculated at the extremes or endpoints of the attained confidence interval for the volume estimate, the hypothetical values are \$0.080 and \$0.087.

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NNA/USPS-T11-7. If the true 1998 volume for Periodicals In-County mail is 963,702,000 pieces, at the upper limit of its 95 percent confidence interval, and the true 1998 volume variable cost is \$76.9 million, please state the resulting marginal cost per piece.

RESPONSE. See the response to NNA/USPS-T11-6.

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NNA/USPS-T11-13. Please confirm that the USPS could reduce the size of the 95 percent confidence interval for Periodicals In-County volume by increasing the size of the samples used to estimate volumes.

RESPONSE. Provided that there are no changes in the population parameter and dispersion measures for the characteristic of interest, and ignoring any effect on the fpc (finite population correction), an increase in the sample size from n to n' generally results in a reduced coefficient of variation of the estimate and a narrower confidence interval estimate by an amount approximately equal to the reciprocal of the square root of the ratio n'/n . For example, assuming that the limiting factors listed above and the administrative considerations pertaining to an increase in sample size can be overcome, in order to achieve a fifty percent reduction in the already low estimated c.v. of the In-County volume estimate to the one percent level, the current sample would have to be quadrupled in size.

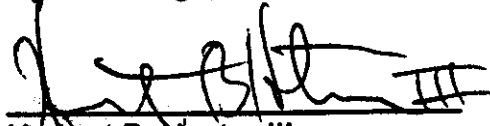
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NNA/USPS-T11-15. Please estimate the increase in sampling costs if the size of the samples used to estimate volumes were doubled. Please estimate the increase in sampling costs if the size of the samples used to estimate volumes were quadrupled.

RESPONSE. The cost of doubling or quadrupling the current number of participants in the BRPW panel, including the PERMIT System offices, is unknown.

DECLARATION

I, Herbert B. Hunter III, hereby declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information and belief.


Herbert B. Hunter III

Date: April 6, 2000

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

K N Hollies

Kenneth N. Hollies

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April 6, 2000